



1FW 2872

Patent Application  
Attorney Docket No.: 62687.000111  
Client Reference No.: D-02005-US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: :

Gregory G. CAPPIELLO :

Appln. No.: 10/771,413 :

Filed: February 5, 2004 :

For: DIFFRACTION GRATING FOR :

WAVELENGTH DIVISION :

MULTIPLEXING/DEMULTIPLEXING :

DEVICES :

Group Art Unit: Unassigned

Examiner:

**Mail Stop Amendment**

Commissioner for Patents /  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with the duty under 37 C.F.R. § 1.56 of each individual associated with the filing and prosecution of the above-identified patent application (hereinafter, "associated individuals") to disclose all information known to that individual to be material to patentability, Applicant(s) hereby submits attached Form PTO-1449 (modified) listing cited references. This submission is made in accordance with 37 C.F.R. §§ 1.97 and 1.98 and § 609 of the Manual of Patent Examining Procedure.

The cited references, while believed to be of some relevance, are not necessarily considered to teach or suggest

any aspect of the invention described and claimed in the above-identified patent application. Applicant(s) hereby expressly reserves the right to swear behind the effective dates of any of the cited references. Applicant(s) further reserves the right to question the relevance, materiality, and/or prior art status of any of the cited references in whole, in part, or in combination, subsequent to the filing of this information disclosure statement. This information disclosure statement is also not to be construed as a representation that a search has, or has not, been conducted or that no better art exists. Rather, this information disclosure statement discloses only the best references of which the associated individuals are aware.

The Examiner is respectfully requested to consider each of the cited references, to indicate such consideration by initialing in the space provided next to each cited reference on the enclosed Form PTO-1449 (modified), to sign the initialed Form PTO-1449 (modified), and to return a copy of the same with the next communication to the Applicant(s).

Since all copies of the cited references except U.S. Patent 6,577,762 were previously submitted in prior U.S. Patent Application Nos. 09/724,803 and 60/208,478, copies of the cited references are not being submitted herewith. However, copies will be forwarded at the request of the Examiner. A copy of

U.S. Patent 6,577,786 is enclosed herewith.

In accordance with 37 CFR § 1.97(b), this information disclosure statement is being filed (i) within three months of the filing date of the above-identified patent application; (ii) within three months of the date upon which the above-identified patent application entered the national stage as set forth in 37 CFR § 1.491; (iii) before the mailing date of a first Office Action on the merits for the above-identified patent application; or (iv) before the mailing date of a first Office Action after the filing of a request for continued examination under 37 CFR § 1.114. Accordingly, no statement or fee is required.

However, if any fees are necessitate due in connection with the filing of this communication to Deposit Account No. 50-0206, and please credit any excess fees to such deposit account.

Respectfully submitted,

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Date: May 5, 2004

<b>FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE</b> <b>(REV. 7-80) PATENT AND TRADEMARK OFFICE</b>				<b>ATTY. DOCKET NO.:</b> 62687.000111		<b>SERIAL NO.:</b> 10/771,143	
<b>LIST OF MATERIALS CITED BY APPLICANT</b> (Use several sheets if necessary)				<b>INVENTOR'S NAME:</b> Gregory G. CAPPIELLO et al.		<b>EXAMINER:</b> Unassigned	
<b>FILING DATE:</b> February 5, 2004				<b>GROUP:</b> Unassigned			

  

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	1.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	1.	4012843	03/22/1977	Harada et al.			
	2.	4111524	09/05/1978	Tomlinson, III			
	3.	4111524	09/05/1978	Tomlinson, III			
	4.	4153330	05/08/1979	Tomlinson, III			
	5.	4198117	09/05/1980	Kobayashi			
	6.	4219933	09/02/1980	Kita et al.			
	7.	4246338	01/20/1981	Kaplan			
	8.	4299488	11/10/1981	Tomlinson, III			
	9.	4343532	08/10/1982	Palmer			
	10.	4387955	06/14/1983	Ludman et al.			
	11.	4652080	03/24/1987	Carter et al.			
	12.	4741588	05/03/1988	Nicia et al.			
	13.	4846552	07/11/1989	Veldkamp et al.			
	14.	4857726	08/15/1989	Kinney et al.			
	15.	4926412	05/15/1990	Jannson et al.			
	16.	5007708	04/16/1991	Gaylord et al.			
	17.	5061025	10/29/1991	Debesis			
	18.	5080465	01/14/1992	Laude			
	19.	5085496	02/04/1992	Yoshida et al.			
	20.	5216680	06/01/1993	Magnusson et al.			
	21.	5233405	08/03/1993	Wildnauer et al.			
	22.	5278687	01/11/1994	Jannson et al.			
	23.	5363220	11/08/1994	Kuwayama et al.			
	24.	5420719	05/30/1995	Montgomery et al.			
	25.	5422745	06/06/1995	Williams et al.			
	26.	5450510	09/12/1995	Boord et al.			
	27.	5450512	09/12/1995	Asakura			
	28.	5457573	10/10/1995	Iida et al.			

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. PATENT DOCUMENTS							
	29.	5457573	10/10/1995	Iida et al.			
	30.	5526155	06/11/1996	Knox et al.			
	31.	5555334	09/10/1996	Ohnishi et al.			
	32.	5583683	12/10/1996	Scobey			
	33.	5748815	05/05/1998	Hamel et al.			
	34.	5777763	07/07/1998	Tomlinson, III			
	35.	5793912	08/11/1998	Boord et al.			
	36.	5796479	08/18/1998	Derickson et al.			
	37.	5835458	11/10/1998	Bischel et al.			
	38.	5907436	05/25/1999	Perry et al.			
	39.	5912997	06/15/1999	Bischel et al.			
	40.	5914811	06/22/1999	Chen et al.			
	41.	5946128	08/31/1999	Pack			
	42.	5970190	10/19/1999	Fu et al.			
	43.	6002522	12/14/1999	Todori et al.			
	44.	20010046087	11/29/2001	Hoose			
	45.	6577786	06/10/2003	Cappiello et al.			

  

FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
							YES	NO
	46.	0323238 A2	07/05/1989	EUROPEAN				
	47.	0540966 A1	05/12/1993	EUROPEAN				
	48.	0859249 A1	08/19/1998	EP				
	49.	9948197	09/23/1999	WO				
	50.	99/67609 A1	12/29/1999	WO				
	51.	0118577 A1	03/15/2001	WO				
	52.	0173484 A1	10/04/2001	WO				
	53.	0206860 A1	01/24/2002	WO				

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							YES	NO
	54.	0297437 A2	01/04/1989	EP				
	55.	9941858	08/19/1999	WO				
	56.	9941858	08/19/1999	WO				
	57.	1001287 A2	05/17/2000	EP				
	58.	0107947 A1	01/02/2001	WO				
	59.	1130422 A1	09/05/2001	EP				

  

OTHER MATERIALS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	60. Patent Abstract of Japan vol. 012, No. 053, 09/04/1987, JP 62 200320 A, Abstract
	61. LAUDE, "Stable Monoblock Wavelength Division Multiplexers with Channel Spacings Down to 0.5 nm Usable as Practical Wavelength Reference Tools in Optical Fibre Communication Systems," Pure and Applied Optics, November 1994, pp. 963-974
	62. PCT, Communication Relating to the Results of the Partial International Search for PCT/US01/17833, 09/16/2002
	63. WADE, Application No. 09/382,492, August 25, 1999
	64. CAPPIELLO et al., Application No. 09/545,826, April 10, 2000
	65. CAPPIELLO et al., Application No. 09/724,771, November 28, 2000
	66. CAPPIELLO et al., Application No. 09/724,770, November 28, 2000
	67. CAPPIELLO, Application No. 09/724,638, November 28, 2000
	68. CAPPIELLO, Application No. 09/724,604, November 28, 2000
	69. SUSSMAN et al., Application No. 09/724,717, November 28, 2000
	70. CAPPIELLO et al., Application No. 09/724,804, November 28, 2000
	71. BOYD, et al. "High-Efficiency Metallic Diffraction Gratings for Laser Applications," Applied Optics, Vol. 34, No. 10, April 1, 1995, pp. 1697-1706
	72. PERRY et al., "High-Efficiency Multilayer Dielectric Diffraction Gratings," Optics Letters, Vol. 20, No. 8, April 15, 1995, pp. 940-942
	73. HARADA et al., "Transfer Function Matrix Measurement of AWG Multi/Demulti-Plexers," IEICE Trans. Comm., Vol. E82-B, No. 2, February 1999, pp. 401-405

EXAMINER	DATE CONSIDERED
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<b>OTHER MATERIALS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	74.	IIDA et al., "Narrow-Band Ten-Channel Optical Multiplexer and Demultiplexer Using a Fourier Diffraction Grating," Applied Optics, Vol. 31, No. 20, July 20, 1992, pp. 4051-4057	
	75.	CHOWDHURY, "Design of Low-Loss and Polarization-Insensitive Reflection Grating-Based Planar Demultiplexers," IEEE Journal of Selected Topics in Quantum Electronics, Vol. 6, No. 2, March/April 2000, pp. 233-239	
	76.	GRAF, "Fabrication and Evaluation of an Etched Infrared Diffraction Grating," Applied Optics, Vol. 33, No. 1, January 1, 1994, pp. 96-102	
	77.	SIMOVA et al., "A Complete System for Characterization of Spectrally Selective Fiber-Optic Devices," Part of the 18 <sup>th</sup> Congress of the International Commission for Optics: Optics for the Next Millennium, SPIE Vol. 3749, August 1999, pp. 124-25	
	78.	GARRETT et al., "Ultra-Wideband WDM Transmission Using Cascaded Chirped Fiber Gratings," AT&T Labs, Optical Fiber Communication, Optical Society of America, February 1999, pp. PD15-1 - PD15-3	
	79.	CHUA et al., "Component Technology Enables High-Capacity DWDM Systems," Lightwave August 1998, pp. 64, 66, 68-69	
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